

**A B S T R A C T**

A computer system comprises a first computer into which target information that an optical apparatus is to achieve is inputted and a second computer that determines 5 the specification of a projection optical system based on the target information received from the first computer via a communication path with using a wave-front aberration amount, which the projection optical system is to satisfy, as a standard. Therefore, in the process of 10 making the projection optical system, higher-order components of the aberration as well as lower-order components can be simultaneously corrected by adjusting the projection optical system based on the result of measuring the wave-front aberration to satisfy the 15 specification, so that the making process becomes simpler. Furthermore, the target that the exposure apparatus is to achieve is securely achieved due to the projection optical system.

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